

Why engage in pest management?

- Because, like it or not we already are

Forests are

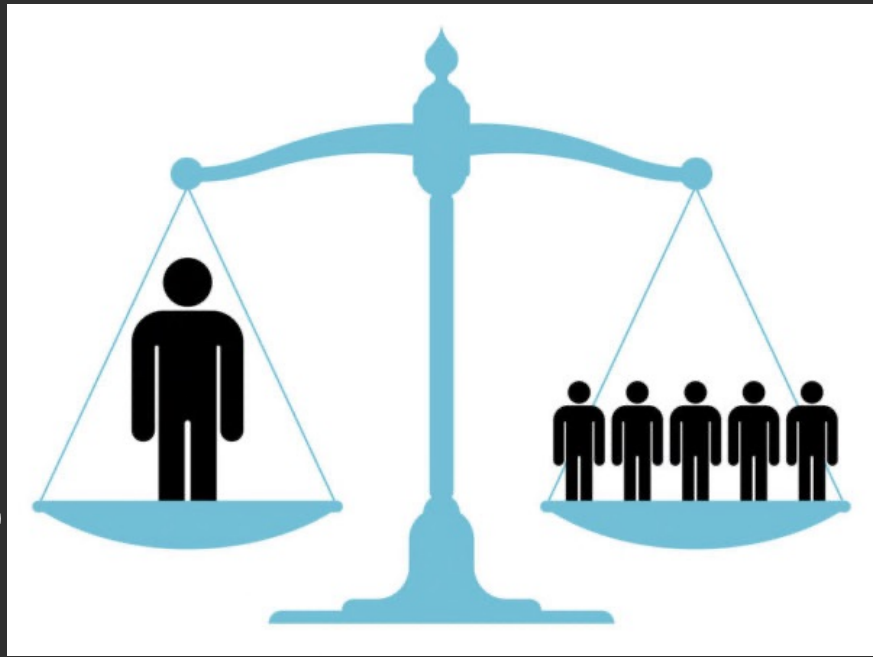
community assets

We (us with forestry

training) have

an ethic to maintain

forests



Utilitarian ethic
= the greatest good for
all

Forest resistance vs. resilience

Resistance = want our forests to more or less stay the same

Resilience = the ability to recover following disturbance

↓
change

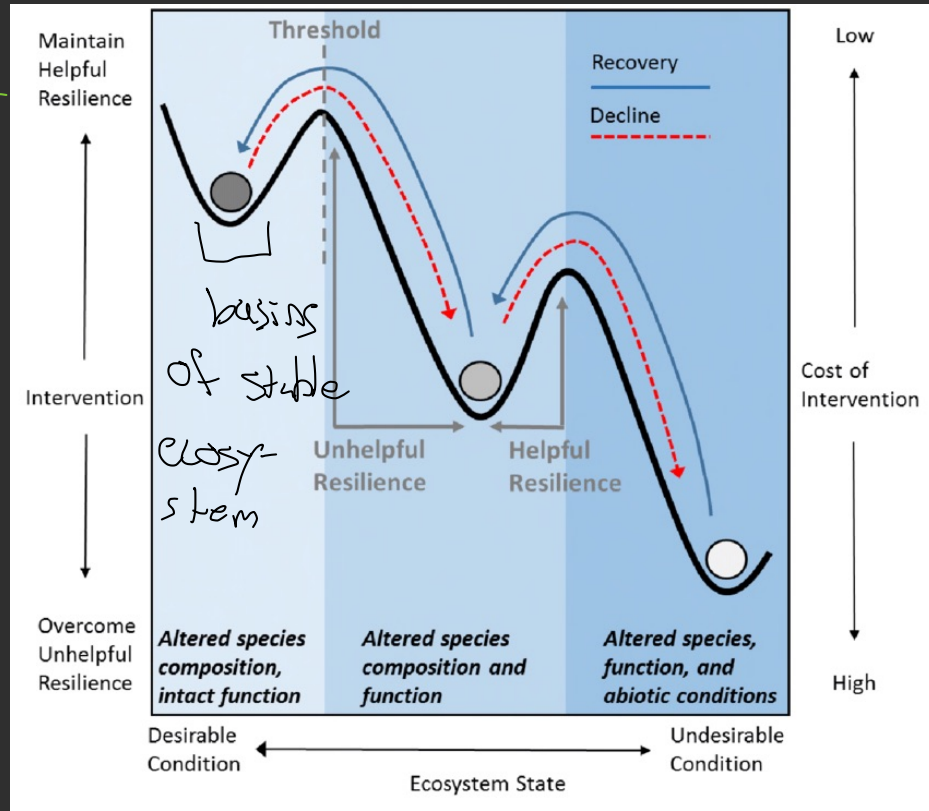
↳ Species composition/forest structure

Basins of

attraction

Goals of

pest management

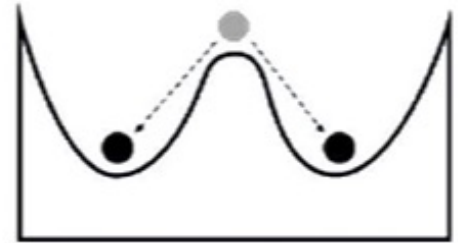
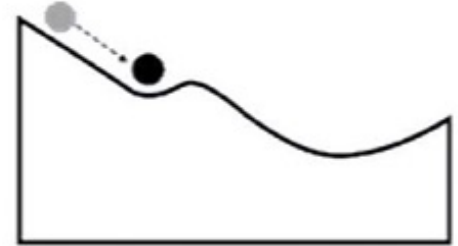


Hoang et al 2017

Our goals and objectives
determine desired

conditions and therefore
what we perceive as
helpful vs. unhelpful
resilience

States and transitions

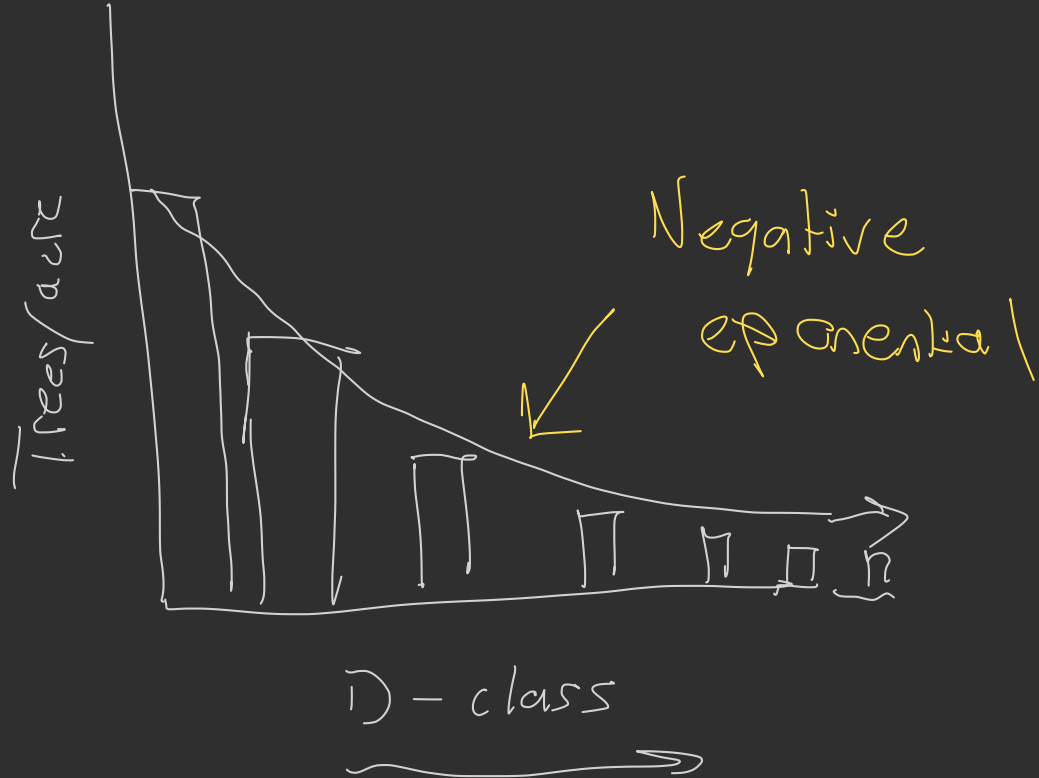


How do we quantify forests?

How do we quantify forests?

→ Zevenier - J

Specifically, what does a normal, un-even stand look like?



— — — —
= log-linear scale

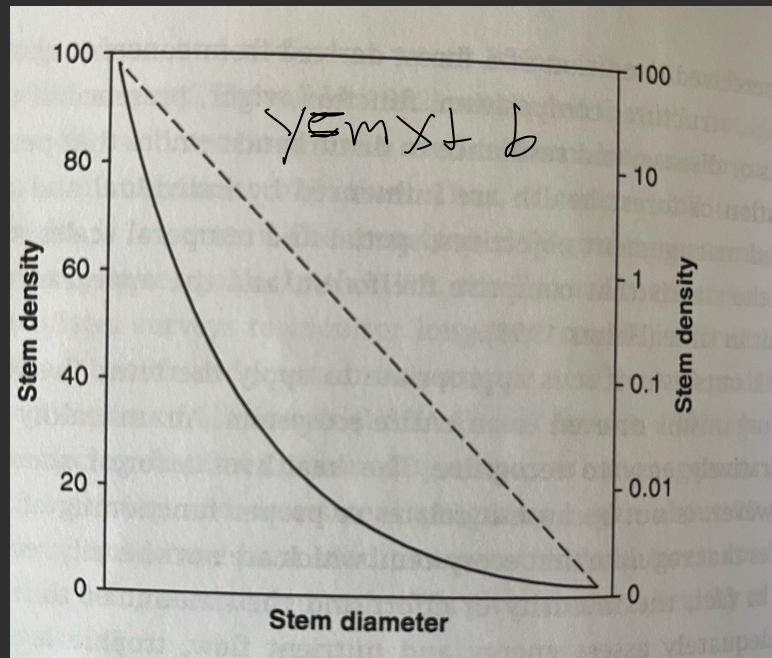
— — — —
= linear scale

→ linear relationship

between density

and size whereas

the slope = baseline mortality of the stand



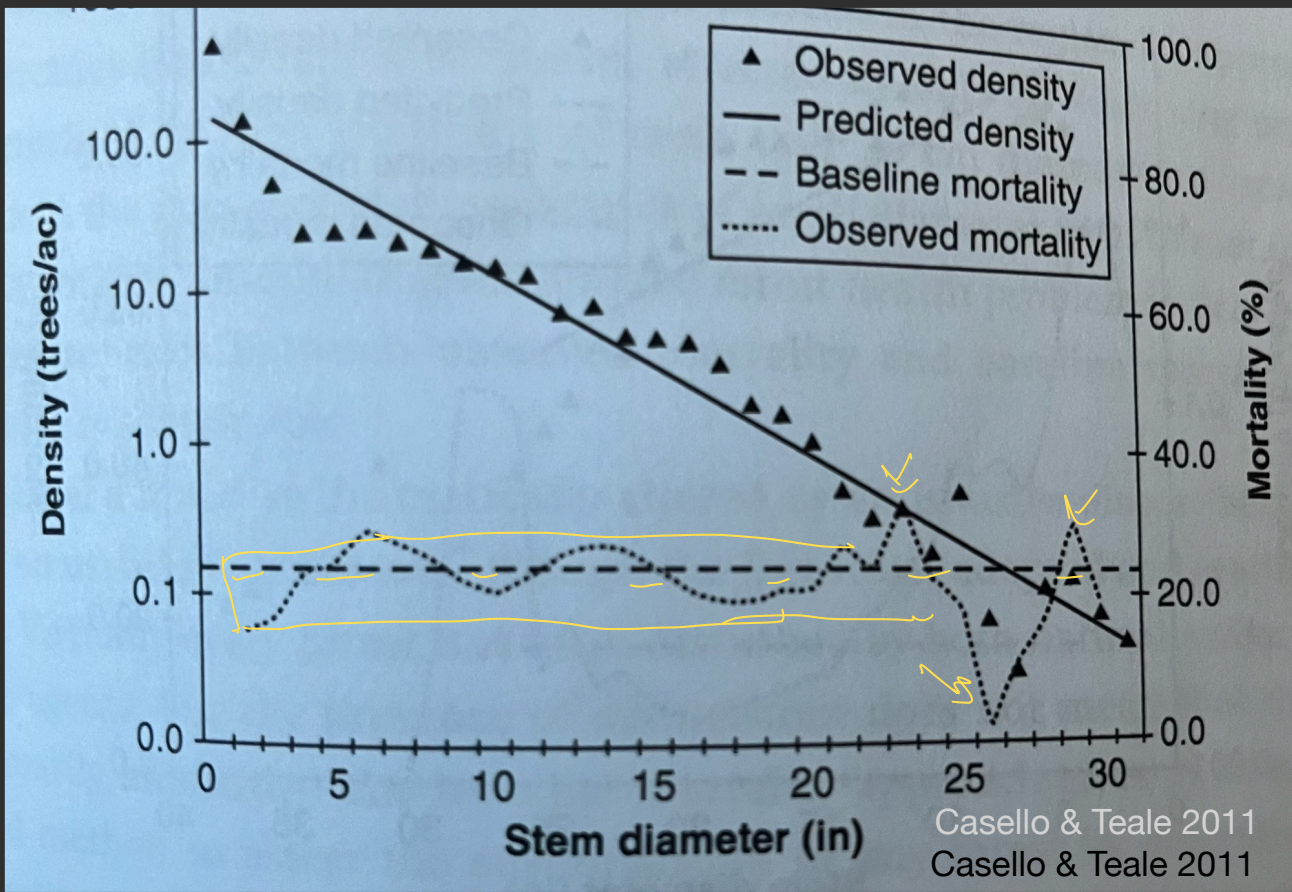
Casello & Teale 2011

Higher
mortality
= Under
stocked

Lower
mortality

than

predicted = Over stocking



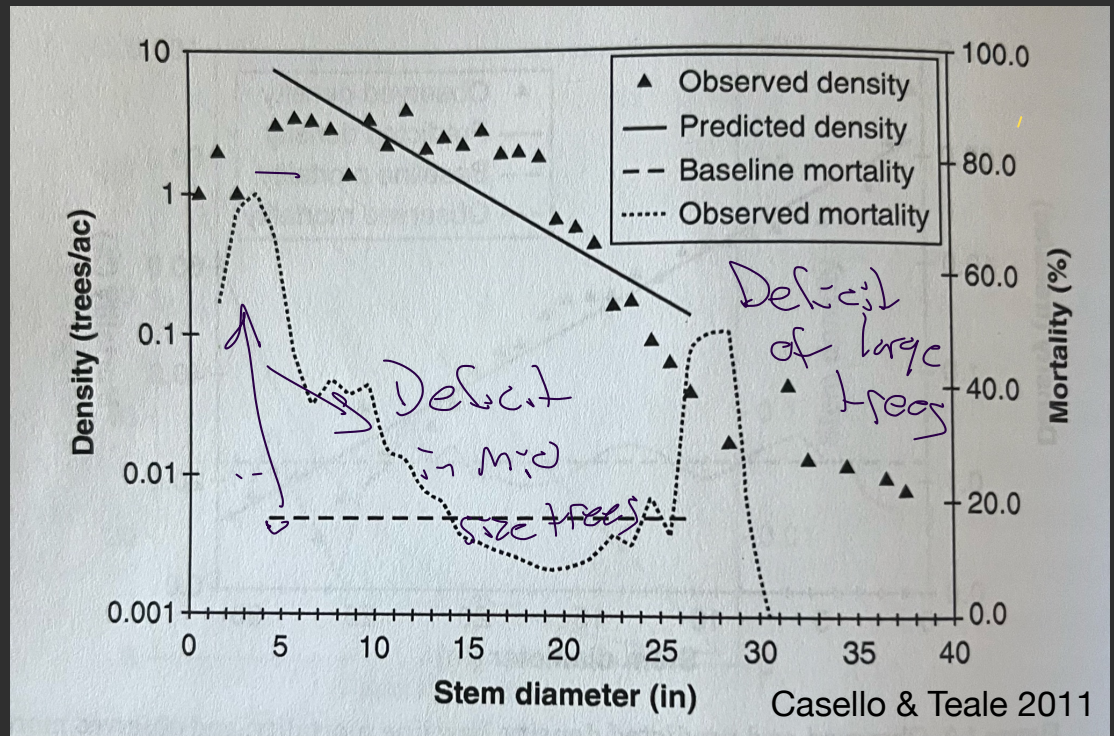
Acer saccharum Sugar Maple from Northern New York

In pairs, talk about this mortality graph

1. What are the implications of the data?

2. What actions might you take as a manager of this forest?

Remember - this is the same stand as Sugar Maple



Pinus strobus - White pine mortality Northern New York

Why are the trees dying?!

forest
structure

Management
obss

Sustainable

Un Sustainable?

productive

healthy

unhealthy

unproductive

unhealthy

unhealthy

Site specific
 framework
 for
 forest health

